Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Office of Secretary Of Defense

R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

APPROPRIATION/BUDGET ACTIVITY

PE 0604828D8Z: Joint Fires Integration & Interoperability

DATE: February 2010

BA 4: Advanced Component Development & Prototypes (ACD&P)

| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
|--|-------------------|---------------------|-----------------------------|----------------------------|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------|
| Total Program Element | 15.446 | 16.835 | 16.637 | 0.000 | 16.637 | 16.764 | 16.941 | 17.199 | 17.452 | Continuing | Continuing |
| P857: Joint Fires Integration & Interoperability | 15.446 | 16.835 | 16.637 | 0.000 | 16.637 | 16.764 | 16.941 | 17.199 | 17.452 | Continuing | Continuing |

A. Mission Description and Budget Item Justification

The Joint Fires Integration & Interoperability Team (JFIIT) funded in this program is a relatively small cell of recognized Joint fires experts adding value to much larger Service investments in force elements designed to produce kinetic and non kinetic effects. Services, Joint, and Combatant Commanders and their Staffs actively seek JFIIT advice and assistance to improve the execution of combat fires applied in complex coalition and joint environments.

The FY 2005 National Defense Authorization Act (NDAA) directed the transfer of US Joint Forces Command (USJFCOM) RDT&E funding of joint warfare experimentation and training programs from Navy accounts to new Defense Wide RDT&E accounts beginning in FY 2007. Funding to support the JFIIT Program prior to FY 2007 was reflected in the Navy's RDT&E Program under PE 0603857N. The new funding alignment brings the JFIIT Program into oversight by the Undersecretary of Defense, Acquisition, Technology and Logistics (USD AT&L) Director Defense Research & Engineering (DDR&E).

Joint Requirements Oversight Council Memo (JROCM) 183-4, dated 8 Oct 04, directed U.S. Joint Forces Command (USJFCOM) to establish a Joint Fires Support Organization. JROCM 241-05, dated 3 Nov 05, validated the JFIIT mission. USJFCOM Directive Number 5170.2 dated 30 Nov 07, Charter for JFIIT, assigns JFIIT responsibility to improve Joint Fires.

The JFIIT mission is to improve the integration, interoperability, and operational effectiveness of Joint fires, at the tactical level. JFIIT takes a holistic approach to improving Joint fires by providing solutions that produce effective target acquisition, command and control, and interoperable firing systems, thereby reducing fratricide and collateral damage. This results in not only near-term tactical identification of issues and solutions, but also informs and provides a foundation for short and long-term operational and tactical capabilities.

JFIIT facilitates the development of Live, Virtual, and Constructive Joint fires and Joint ISR training applications at the Combat Training Centers (CTCs). Focus areas include Signals Intelligence (SIGINT), Full Motion Video (FMV), Non-traditional ISR (NT-ISR), Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI), and Electronic Warfare to include counter Improvised Explosive Device (IED). JFIIT also assists with scenario and architecture development to duplicate real world operational environments to facilitate Joint fires and Joint ISR training opportunities.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Office of Secretary Of Defense

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0604828D8Z: Joint Fires Integration & Interoperability

B. Program Change Summary (\$ in Millions)

| | FY 2009 | FY 2010 | <u>FY 2011 Base</u> | FY 2011 OCO | FY 2011 Total |
|---|---------|---------|---------------------|-------------|---------------|
| Previous President's Budget | 16.906 | 16.972 | 0.000 | 0.000 | 0.000 |
| Current President's Budget | 15.446 | 16.835 | 16.637 | 0.000 | 16.637 |
| Total Adjustments | -1.460 | -0.137 | 16.637 | 0.000 | 16.637 |
| Congressional General Reductions | | 0.000 | | | |
| Congressional Directed Reductions | | 0.000 | | | |
| Congressional Rescissions | 0.000 | 0.000 | | | |
| Congressional Adds | | 0.000 | | | |
| Congressional Directed Transfers | | 0.000 | | | |
| Reprogrammings | 0.000 | 0.000 | | | |
| SBIR/STTR Transfer | -0.462 | 0.000 | | | |
| Other Program Adjustments | -0.998 | -0.137 | 16.637 | 0.000 | 16.637 |

| Exhibit R-2A, RDT&E Project Jus | stification: Pl | 3 2011 Office | e of Secreta | ry Of Defens | е | | | | DATE: Feb | ruary 2010 | |
|---|-------------------|---------------------|-----------------------------|----------------------------|------------------------------|------------------------------|---------------------|------------------------|---|---------------------|---------------|
| APPROPRIATION/BUDGET ACTI 0400: Research, Development, Tes BA 4: Advanced Component Devel | st & Evaluatio | | | | | TURE Fires Integra | tion & | PROJECT P857: Joint | ROJECT 357: Joint Fires Integration & Interd | | |
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
| P857: Joint Fires Integration & Interoperability | 15.446 | 16.835 | 16.637 | 0.000 | 16.637 | 16.764 | 16.941 | 17.199 | 17.452 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

A. Mission Description and Budget Item Justification

The Joint Fires Integration & Interoperability Team (JFIIT) funded in this program is a relatively small cell of recognized Joint Fires experts adding value to much larger Service investments in force elements designed to produce kinetic and non kinetic effects. Services, Joint, and Combatant Commanders and their Staffs actively seek JFIIT advice and assistance to improve the execution of combat fires applied in complex coalition and joint environments.

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Joint Requirements Oversight Council Memo (JROCM) 183-4, dated 8 Oct 04, directed USJFCOM to establish a Joint Fires Support Organization. JROCM 241-05, dated 3 Nov 05, validated the JFIIT mission. USJFCOM Directive Number 5170.2 dated 30 Nov 07, Charter for JFIIT, assigns JFIIT responsibility to improve Joint Fires.

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B. Accomplishments/Planned Program (\$ in Millions)

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense | | | DATE: February 2010 | | | |
|--|---|---|------------------------|---------------|----------------|-------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration Interoperability | - | PROJECT P857: Joint | Fires Integra | ation & Interd | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | |
| | | | | FY 2011 | FY 2011 | FY 2011 |

FY 2009

6.796

FY 2010

7.407

Base

7.320

OCO

0.000

Total

7.320

Joint Fires Integration & Interoperability (JFIIT) Assessments and Evaluations

The emphasis of JFIIT Assessments effort is the evaluation of Joint fires and combat identification to provide Services and Agencies findings and recommendation based on quantifiable data in order to improve Joint Fires. JFIIT collects and analyzes data and provides observations, findings, conclusions, and recommendations to identify Joint doctrine, training, and material solutions and products that promote capability improvement. Accurate data is necessary to effectively develop solutions to identified problems. JFIIT provides a truth-based data collection capability to support a holistic approach to the overall improvement of Joint fires. Evaluations range from small, single-focus events to large, multi-event/venue exercises.

JFIIT conducts assessments in conjunction with Service and Combatant Command (COCOM) exercises, experiments, and test & evaluation events. The emphasis of this JFIIT effort is assessing Joint fires and combat identification capabilities to ensure that Services and Agencies field interdependent and interoperable systems and training. JFIIT Assessment efforts include verifying an accurate Joint environment is depicted during realistic training that exercises one or more Joint tasks, assessing Joint context and Joint task execution while addressing the effectiveness of a Joint training program and identifying the need for continued support of Joint fires tactics, techniques and procedures (TTP) and doctrine. JFIIT assessments provide input to acquisition processes and enhance Joint development as programs are funded and developed.

The primary outputs and efficiencies include:

- Improvement in the Services' ability to employ Joint fires.
- Improved Joint Intelligence, Surveillance, and Reconnaissance (ISR) and integrated Air to Ground training at Home Station and the Combat Training Centers.
- An enhanced Joint operational environment at the Combat Training Centers that supports the execution of Joint tasks during service training and enhances JFIIT's ability to conduct assessments.

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|---|---|---------|------------------------|--|----------------|------------------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integral Interoperability | tion & | PROJECT P857: Joint | PROJECT P857: Joint Fires Integration & Interope | | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | · | | | | | |
| • | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 201 ^o Total |
| Recommended solutions integrated within the USJFCOM-led Jode Development System (JCIDS) and Joint C2 Capability Portfolio Modentification of specific key performance parameters (KPPs) and new systems that meet Joint warfighter operational requirements interdependent and interoperable systems Published doctrine and Joint Tactics, Techniques and Procedure Joint forces at the tactical level Increased effectiveness and confidence in combat identification FY 2009 Accomplishments: -Using the Brigade Combat Team Air-Ground Integration (BCT Army Brigade Combat Teams (BCT) from the beginning of their through their deployment and execution of their assigned mission Operation Enduring Freedom Areas of Operation. Develop Doct Leadership, Personnel, Facilities (DOTMLPF) recommendations Standard Operating Procedure and improvements to Brigade Cobased on observations and analysis throughout this process. Be service members, improved Joint TTP, and improved pre-deploy-In support of US Army Training and Doctrine Command (TRAD Component Command (ACC), improved the tactical application and Reconnaissance (ISR) and the integration of Air to Ground Center, Fort Irwin, CA, and Green Flag West, Nellis AFB, NV. Proceedings of the provided a post-event debrief to the venue stored USJFCOM. Benefits included better trained service members tasks at service training venues, and an improved Joint operation Service Combat Training Center. | lanager (JC2 CPM) processes d key system attributes (KSAs) for to ensure Services and Agencies field es to efficiently and effectively employ and a reduction in fratricide A-GI) initiative, followed two US pre-deployment training activities, ns in the Operation Iraqi Freedom and rine, Organization, Training, Material, and proposals for changes to unit embat Team pre-deployment training enefits will include better trained rement training. OC) and US Air Force Air of Joint Intelligence, Surveillance, Operations at the National Training provided training support and feedback as support staff during multiple (10 taff and an Exercise Summary Report is, improved ability to execute joint | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secr | etary Of Defense | | DATE: Feb | ruary 2010 | |
|---|--|-----------------------|-----------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | PROJECT P857: Join | t Fires Integr | ation & Inter | roperability |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | |
| | FY 200 | 9 FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| -In support of USA TRADOC and USAF ACC, improved the tactintegration of Air to Ground Operations at the Joint Readiness To Green Flag East, Barksdale AFB, LA. Provided training support observer trainers/controllers, and venue support staff during mula a post-event debrief to the venue staff and an Exercise Summar included better trained service members, improved ability to exercise and an improved Joint operational environment and Join Training Center. - In support of US Army Training and Doctrine Command (TRAD (USAFE), improved the tactical application of Joint ISR and the interpretation of Joint Multi-National Readiness Center, Hoenfels, Germany feedback to exercise participants, observer trainers/controllers, at (2 rotations in FY09). Provided a post-event debrief to the venue Report to USJFCOM. Benefits included better trained service may joint tasks at service training venues, and an improved Joint operate at a Service Combat Training Center. - In support of USMC Marine Air-Ground Task Force – Training Center at Service Combat Center, Twenty-Nine Palms, CA. Provided train participants, observer trainers/controllers, and venue support state Viper rotations. Provided a post-event debrief to the venue staff USJFCOM. Define training support to Marine Corps Tactics and Resolve exercises. Benefits included better trained service members at service training venues, and an improved Joint operation Service Combat Training Center. - Continued to support the Coalition Combat Identification Advancements. - Continued to support the Coalition Combat Identification Advancements. - Continued to support the Coalition Combat Identification Advancements. | raining Center, Fort Polk, LA, and and feedback to exercise participants, tiple (10 rotations in FY09). Provided by Report to USJFCOM. Benefits cute joint tasks at service training and context at a Service Combat (100°) and US Air Forces Europe (110°) and US Air Forces Europe (110°) and US Air Forces Europe (110°) and venue support and (110°) and venue support staff during multiple (110°) as staff and an Exercise Summary (110°) embers, improved ability to execute (110°) and Operations at the Marine Corps Air (110°) and Exercise Summary Report to (110°) and E | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secre | nibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense | | DATE: February 2010 | | | |
|--|--|---------|--|-----------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integra Interoperability | tion & | PROJECT P857: Joint Fires Integration & Interopera | | | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| Utility Assessment of coalition and US Combat Identification Systems collection, data capture, real-time mission monitoring, and for debriefings. Benefits will include improved ability to assess various systems, improved joint task execution, and an effective Milit Combat Identification systems while greatly reducing the timeline recommendations. - Continued support for irregular warfare in the capability and train operations exercises and events in preparation for Deployment as solutions in support of irregular warfare issues identified during the capabilities assessments. - Continued support to US Air Forces Central (USAFCENT formed Air Support Operations Group (ASOG) in training Joint Terminal Joint Fires Officers (JFOs) teams during exercises Atlantic Strike feedback to the training audience and trainers. Benefits included Terminal Attack Controllers (JTACs) and Joint Fires Officers (JFOs) and Joint Fires O | peedback to participants via daily pus participating coalition and ary Utility Assessment of US arequired to provide fact-based aning assessment of special and assisted in the identification of nese joint task execution and joint arly USCENTAF) and the 18th Attack Controllers (JTACs) and a Provided training support and a increased combat readiness of Joint Os) as well as Air Support Operations and I Assessment (LOA) as a and tactical operators and led the acticell to small unit operations. In versal Joint Tasks (UJT) to conduct and increased compart of the participant of the p | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secret | ary Of Defense | DATE: February 2010 |
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| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
| 0400: Research, Development, Test & Evaluation, Defense-Wide | PE 0604828D8Z: Joint Fires Integration & | P857: Joint Fires Integration & Interoperability |
| BA 4: Advanced Component Development & Prototypes (ACD&P) | Interoperability | |
| D. A. a. a. a. i. i. i. a. a. d. (Diana and Diana and A. i. a. M. ii. | · | |

EV 2044 EV 2044 EV 2044

B. Accomplishments/Planned Program (\$ in Millions)

| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | |
|--|---------|---------|-----------------|----------------|------------------|--|
| to unit Standard Operating Procedure and improvements to Brigade Combat Team pre-deployment training based on observations and analysis throughout this process. Benefits will include better trained service members, improved Joint TTP, and improved pre-deployment training. - In support of, US Army Training and Doctrine Command (TRADOC) and US Air Force Air Component Command (ACC), continue efforts to improve the tactical application of Joint ISR and the Integration of Air to Ground Operations at the National Training Center, Fort Irwin, CA, and Green Flag West, Nellis AFB, NV. Provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during 10 training rotations. Provide a post-event debrief to the venue staff and an Exercise Summary Report to USJFCOM. Benefits will include better trained service members, improved ability to execute joint tasks at service training venues, and an improved Joint operational environment and Joint context at a Service Combat Training Center. - In support of USA TRADOC and USAF ACC, continue efforts to improve the tactical application of Joint ISR and the Integration of Air to Ground Operations at the Joint Readiness Training Center, Fort Polk, LA, and Green Flag East, Barksdale AFB, LA. Provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during 10 training rotations. Provide a post-event debrief to the venue staff and an Exercise Summary Report to USJFCOM. Benefits will include better trained service members, improved ability to execute joint tasks at service Combat Training Center. - In support of USA TRADOC and US Air Forces Europe (USAFE), continue efforts to improve the tactical application of JISR and the Integration of Air to Ground Operations at the Joint Multi-National Readiness Center, Hoenfels, Germany. Provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during 2 training rotati | | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secret | ary Of Defense | DATE: February 2010 |
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| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
| 0400: Research, Development, Test & Evaluation, Defense-Wide | PE 0604828D8Z: Joint Fires Integration & | P857: Joint Fires Integration & Interoperability |
| BA 4: Advanced Component Development & Prototypes (ACD&P) | Interoperability | |
| | | |

EV 2011 EV 2011 EV 2011

B. Accomplishments/Planned Program (\$ in Millions)

| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
|---|---------|---------|-----------------|----------------|------------------|
| - In support of USMC Marine Air-Ground Task Force – Training Command (MAGTF-TC) continue efforts to improve the tactical application of Joint ISR and the Integration of Air to Ground Operations at the Marine Corps Air Ground Combat Center, Twenty-Nine Palms, CA. Provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during 5 enhanced Mojave Viper rotations and 5 Spartan Resolve training exercises. Provide a post-event debrief to the venue staff and an Exercise Summary Report to USJFCOM. Continue efforts to define training support to Marine Corps Tactics and Operations Group (MCTOG). Benefits will include better trained service members, improved ability to execute joint tasks at service training venues, and an improved Joint operational environment and Joint context at a Service Combat Training Center In support of the USN 2nd Fleet (east coast) and 3rd Fleet (west coast), provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during multiple Fleet Synthetic Training-Joint (FST-J) training exercises. Also, provide a post-event debrief to the venue staff and an Exercise Summary Report to USJFCOM. Benefits will include better trained service members, improved ability to execute joint tasks at service training venue In support of the USN 2nd Fleet (east coast) and 3rd Fleet (west coast), provide training support and feedback to exercise participants, observer trainers/controllers, and venue support staff during multiple Joint Task Force Exercise (JTFEX) training exercises. Also, provide a post-event debrief to the venue staff and an Exercise Summary Report to USJFCOM. Benefits will include better trained service members, improved ability to execute joint tasks at service training venue In support of USN Naval Surface Warfare Center (NSWC), provide analytical support to netted sensor assessments conducted to determine how to integrate world-wide sensors on a Global Information Grid | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secr | etary Of Defense | | | DATE: Feb | ruary 2010 | |
|--|--|---------|-----------------------|-----------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integrati Interoperability | on & | PROJECT P857: Join | t Fires Integr | ation & Inter | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | , | | 1 | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| Continue to support the Coalition Combat Identification Advance Demonstration (CCID ACTD) Bold Quest events. Provide analy Utility Assessment of coalition and US Combat Identification Systems data collection, data capture, real-time mission monitoring, and featily debriefings. Benefits will include improved ability to assess and US systems, improved joint task execution, and an effective Combat Identification systems while greatly reducing the timeline recommendations. Continue support for irregular warfare in the capability and train exercises and events in preparation for Deployment and will ass support of irregular warfare issues identified during these joint tassessments. Continue support to USAFCENT and the various Air Support Country Joint Terminal Attack Controllers (JTACs) and Joint Fires Officer support and feedback to the training audience and trainers. Ber readiness of JTACs and JFOs as well as Air Support Operations. FY 2011 Base Plans: Using the Brigade Combat Team Air-Ground Integration (BCT Army Brigade Combat Teams (BCT) from the beginning of their through their deployment and execution of their assigned mission Training, Material, Leadership, Personnel, Facilities (DOTMLPF) for changes to unit Standard Operating Procedure and improven deployment training based on observations and analysis through better trained service members, improved Joint TTP, and improve In support of US Army Training and Doctrine Command (TRADC Command (ACC), continue efforts to improve the tactical application of Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the National Training Center, Fortical Air to Ground Operations at the Na | stems. Provide instrumentation, seedback to participants via a various participating coalition. Military Utility Assessment US a required to provide fact-based oning assessment of special operations ist in the identification of solutions in ask execution and joint capabilities. Operations Groups (ASOGs) in training as (JFOs) teams. Provide trai | | | | | |

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| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | Iopment, Test & Evaluation, Defense-Wide PE 0604828D8Z: Joint Fires Integration & P857: Joint | | | | | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | | · | | | | |
| | FY | 2009 FY | 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| Nellis AFB, NV. Provide training support and feedback to exercise controllers, and venue support staff during multiple (10 rotations debrief to the venue staff and an Exercise Summary Report to Utrained service members, improved ability to execute joint tasks a improved Joint operational environment and Joint context at a Se-In support of USA TRADOC and USAF ACC, continue efforts to Joint ISR and the Integration of Air to Ground Operations at the Fort Polk, LA, and Green Flag East, Barksdale AFB, LA. Provide exercise participants, observer trainers/controllers, and venue su (10 rotations in FY09). Also, provide a post-event debrief to the Report to USJFCOM. Benefits will include better trained service joint tasks at service training venues, and an improved Joint operat a Service Combat Training Center. In support of US Army Training and Doctrine Command (TRAD continue efforts to improve the tactical application of JISR and the Operations at the Joint Multi-National Readiness Center, Hoenfe and feedback to exercise participants, observer trainers/controlle multiple rotations. Also, provide a post-event debrief to the venu Report to USJFCOM. Benefits will include better trained service joint tasks at service training venues, and an improved Joint operat a Service Combat Training Center. In support of USMC Marine Air-Ground Task Force – Training Cefforts to improve the tactical application of Joint ISR and the Integration of Joint ISR and the Integration of Geometric Company Report to Usmany Rep | in FY09). Provide a post-event SJFCOM. Benefits will include better at service training venues, and an ervice Combat Training Center. In improve the tactical application of Joint Readiness Training Center, at training support and feedback to apport staff during multiple rotations wenue staff and an Exercise Summary members, improved ability to execute rational environment and Joint context of Society and Venue support staff during support staff and an Exercise Summary members, improved ability to execute rational environment and Joint context of Society and Venue support staff during support and environment and Joint context of Society and Command (MAGTF-TC), continue regration of Air to Ground Operations alms, CA. Provide training support staff during exercises. Also, provide a post-event | | | | | |

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training support to Marine Corps Tactics and Operations Group (MCTOG). Benefits will include better

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DATE: February 2010

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| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | | PROJECT P857: Joint | Fires Integr | ation & Inter | operability |
|---|--|---------|------------------------|-----------------|----------------|------------------|
| B. Accomplishments/Planned Program (\$ in Millions) | , , | | 1 | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| trained service members, improved ability to execute joint tasks a improved Joint operational environment and Joint context at a Se-Continue support to the USN 2nd Fleet (east coast) and 3rd Fle support and feedback to exercise participants, observer trainers/of during multiple Fleet Synthetic Training-Joint (FST-J) training execute debrief to the venue staff and an Exercise Summary Report to US trained service members, improved ability to execute joint tasks a improved Joint operational environment and Joint context at a Se-Continue support to the USN 2nd Fleet (east coast) and 3rd Fle support and feedback to exercise participants, observer trainers/of during multiple Joint Task Force Exercise (JTFEX) training exercited debrief to the venue staff and an Exercise Summary Report to US trained service members, improved ability to execute joint tasks a improved Joint operational environment and Joint context at a Se-Continue support of USN Naval Surface Warfare Center (NSWO netted sensor assessments conducted to determine how to integrate Information Grid (GIG) to allow for a common operational picture data collection, data capture, real-time mission monitoring, and fedebriefings. Benefits will include improved integration of world-winteroperability. Continue to support the Coalition Combat Identification Advance Demonstration (CCID ACTD) Bold Quest efforts. Provide analytic Utility Assessment of coalition and US Combat Identification Syst data collection, data capture, real-time mission monitoring, and fedaily debriefings. Benefits will include improved ability to assess and US systems, improved joint task execution, and an effective Combat Identification systems while greatly reducing the timeline recommendations. | ervice Combat Training Center. et (west coast), providing training controllers, and venue support staff ercises. Also, providing a post-event SJFCOM. Benefits will include better at service training venues, and an ervice training venue. et (west coast), providing training controllers, and venue support staff ess. Also, providing a post-event est service training venues, and an ervice training venues, and an ervice training venues, and an ervice training venue. C), providing analytical support to erate world-wide sensors on a Global Also providing instrumentation, eedback to participants via daily de sensors and improved Joint ed Combat Identification cal support to provide a Military ems. Also provide instrumentation, eedback to participants via various participating coalition Military Utility Assessment US | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secre | | DATE: Febr | uary 2010 | | | |
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| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integra Interoperability | PROJECT P857: Joint | Fires Integra | ation & Interd | pperability | |
| B. Accomplishments/Planned Program (\$ in Millions) | | | 1 | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| Continue support for irregular warfare in the capability and train exercises and events in preparation for Deployment and will assi support of irregular warfare issues identified during these joint taxassessments. Continue support to USAFCENT and the various Air Support O Joint Terminal Attack Controllers (JTACs) and Joint Fires Officer support and feedback to the training audience and trainers. Ben readiness of JTACs and JFOs as well as Air Support Operations | | | | | | |
| Joint Fires Integration & Interoperability (JFIIT) Capabilities Develope | ntegration & Interoperability (JFIIT) Capabilities Development 8.650 | | | | | 9.317 |
| The emphasis of the JFIIT Capabilities Development effort is cont combat identification capabilities. JFIIT focuses on current and emas tactics, techniques, and procedures (TTP), Systems, and Systems the Combat Training Centers to enhance Joint training for evolving the rotational units pre-deployment exercises as the basis to deve to address the operational gaps and seams. To support Service a capability development efforts, JFIIT develops Doctrine, Organizar Personnel, Facilities (DOTMLPF) Change Recommendations; imprommand and control, and firing systems interoperability resulting efficiency; and provides technical expertise in identifying Joint solutions. | nergent Joint Fires capabilities such em of Systems. JFIIT is working with g joint fires issues identified during lop tactical level recommendations and Component Command (COCOM) tion, Training, Material, Leadership, provements in coordinating fires, in increased effectiveness and | | | | | |
| The primary outputs and efficiencies include: - Recommendations for Counter-Rocket, Mortar, and Artillery (C-F-Validated Doctrine, Organization, Training, Material, Leadership, Joint fires recommendations - Improvements in Joint Terminal Attack Controller (JTAC) and Jotactics, techniques and procedures (TTP) - Appraisals of service venues joint context and ability to support joint context. | Personnel, Facilities (DOTMLPF) int Fires Observer equipment and | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secr | etary Of Defense | | | DATE: Feb | ruary 2010 | |
|--|---|------|----------------------|--------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & P857: Jointeroperability | | | Fires Integr | ation & Inter | operability |
| B. Accomplishments/Planned Program (\$ in Millions) | | | FY 2010 FY 2011 Base | | | |
| | FY | 2009 | FY 2010 | | FY 2011 OCO | FY 2011 Total |
| Resolution of Combat Identification and Joint Close Air Support Publication of Tactical Leader's Joint Intelligence, Surveillance & Accreditation/certification for Joint fires context and training capa. Recommendations for tactical Joint fires improvement solutions Recommendations for system integration and interoperability Optimum utilization of currently fielded systems as evidenced th Ability to include Joint context during new system acquisition or New system capability that meets current Joint operational requiperoperational requiperoperation of the proposed tactics, techniques and procedures (TTP) and doctring lurication deployed forces Reduced collateral damage and decreased number of fratricide Jointly trained forces FY 2009 Accomplishments: Continued to refine and enhance support to pre-deployment mit requested by the Services and Combatant Commands. Evolving rotational units pre-deployment exercises form the basis to develod address the operational gaps and seams. Continued to develop the Joint Intelligence, Surveillance, and Foundation that the Combat Training Centers (CTC) integrated training initiatives network subject matter expertise to: assist synchronization of joint execution; and training development and mentoring to Combat Tocontrollers. These activities promoted the synergistic application perform joint fires. | Reconnaissance (ISR) Handbook ability of all service venues rough feedback from deployed forces development rements e as evidenced through feedback from incidents across the force ssion rehearsal exercises as joint fires issues identified during the lop tactical level recommendations to Reconnaissance (ISR) Integration at the incidence of the point incidence of the point is and integration at the provided Joint fires, Joint ISR, and integration center staff and observer | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secre | DATE: February 2010 | | | | | |
|---|---|-----------------------|-----------------|----------------|------------------|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | PROJECT P857: Join | operability | | | |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | |
| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | |
| Served as the USJFCOM lead for Counter-Rocket, Artillery, and development of tactics, techniques, and procedures for effective to enhance this Joint capability. | | | | | | |
| Continued as USJFCOM lead for advocacy of the Global Area I promoted standardized application and employment of a commo and accurate exchange of target data to conduct joint fires. | | | | | | |
| Provided planning, execution, and analysis support for future U This is an ongoing event to evaluate and train Joint Close Air Su Controllers, and Joint Fires Observers. Continued to provide Joint Fires subject matter expertise to the joint guidance, assessment, and analysis to proactively shape Se interoperability in Joint Fires related tasks. | oport aircrews, Joint Terminal Attack JC2 CP Manager to develop | | | | | |
| Continued Joint Windows-based Warfare Assessment Model (J to support JFIIT assessment activities and the efforts of other go Continued to support the Joint National Training Capability (JNT mitigation program and execution of Joint fires related JNTC exe | vernment agencies as directed. (C) certification, accreditation, and | | | | | |
| FY 2010 Plans: - Continue to refine and enhance support to pre-deployment miss by the Services and Combatant Commands. Evolving Joint fires units pre-deployment exercises form the basis to develop tactica the operational gaps and seams. | issues identified during the rotational | | | | | |
| - Continue to develop the Joint Intelligence, Surveillance, and Rethe Combat Training Centers (CTC) integrated training initiatives | | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secre | | DATE: Feb | ruary 2010 | | |
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| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | PROJECT P857: Join | operability | | |
| B. Accomplishments/Planned Program (\$ in Millions) | · | | | | |
| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| network subject matter expertise to: assist synchronization of joir execution; and training development and mentoring to Combat T controllers. These activities will promote the synergistic application perform Joint fires. | raining Center staff and observer | | | | |
| Continue to work as the USJFCOM lead for Counter-Rocket, Ar follow on Integrated Unit, Base and Installation Protection (IUBIP and procedures for effective utilization of the IUIBP technologies |) system. Develop tactics, techniques, | | | | |
| - Provide planning, execution, and analysis support for future US This is an ongoing event to evaluate and train Joint Close Air Sup Controllers, and Joint Fires Observers. | | | | | |
| Continue to provide Joint Fires subject matter expertise to the J guidance, assessment, and analysis to proactively shape Service interoperability in Joint Fires related tasks. Continue JWinWAM software and development to support JFIIT | e POMs to achieve systems | | | | |
| of other government agencies as directed Continue to support the Joint National Training Capability (JNT) mitigation program and execution of Joint fires related JNTC exe | | | | | |
| FY 2011 Base Plans: - Continue to refine and enhance support to pre-deployment miss by the Services and Combatant Commands. Evolving joint fires is units pre-deployment exercises form the basis to develop tactical the operational gaps and seams. - Continue to develop the Joint ISR Integration at the Combat Tratraining initiatives. JFIIT will provide Joint fires, Joint ISR, and new | ssues identified during the rotational level recommendations to address aining Centers (CTC) integrated | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secreta | DATE: February 2010 | | |
|--|---|------------------------|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | PROJECT P857: Joint | t Fires Integration & Interoperability |

B. Accomplishments/Planned Program (\$ in Millions)

| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
|--|---------|---------|-----------------|----------------|------------------|
| assist synchronization of joint tasks; facilitate joint mission thread execution; and training development and mentoring to Combat Training Center staff and observer controllers. These activities will promote the synergistic application of Joint capabilities to effectively perform joint fires. - Continue work as the USJFCOM lead for Counter-Rocket, Artillery, and Mortar (C-RAM) and the follow on Integrated Unit, Base and Installation Protection (IUBIP) system. Develop tactics, techniques, and procedures for effective utilization of the IUIBP technologies to enhance this Joint capability. - Provide planning, execution, and analysis support for future USCENTAF Atlantic Strike exercises. This is an ongoing event to evaluate and train Joint Close Air Support aircrews, Joint Terminal Attack Controllers, and Joint Fires Observers. | | | | | |
| Continue to provide Joint Fires subject matter expertise to the JC2 CP Manager to develop joint guidance, assessment, and analysis to proactively shape Service POMs to achieve systems interoperability in Joint Fires related tasks. | | | | | |
| Continue Joint Windows-based Warfare Assessment Model (JWinWAM) software and development to support JFIIT assessment activities and the efforts of other government agencies as directed. | | | | | |
| Accomplishments/Planned Programs Subtotals | 15.446 | 16.835 | 16.637 | 0.000 | 16.637 |

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

Not applicable for this item.

E. Performance Metrics

JFIIT delivers Joint solutions for tactical forces deployed to Combatant Commands (COCOMs). Deliverables may include: discrete improvements to training processes; doctrine; Tactics, Techniques, & Procedures (TTPs); and/or technical system performance specifications and standards; validated Doctrine, Organization, Training,

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretar | on: PB 2011 Office of Secretary Of Defense | | | | |
|--|---|--|--------------------------------------|--|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0604828D8Z: Joint Fires Integration & Interoperability | | Fires Integration & Interoperability | | |
| Material, Leadership, Personnel, Facilities (DOTMLPF) Joint fires record Joint context of a training venue. USD AT&L/DDR&E and USJFCOM w | | | | | |
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| R-4, RDT&E Schedule Profile: PB 201 | 1 Office of Secretary Of | | | | | | | _ | | | DAT | E: F | ebrua | ary 2010 |
|---|--------------------------|--------|--|---------|--------|----------|----------|-----|----------------|------|-------|------|--------|-----------------|
| OPRIATION/BUDGET ACTIVITY Research, Development, Test & Evaluation Indicated Component Development & Pro- | | PE 060 | EM NOMEN 04828D8Z: J perability | | | ration d | <u>s</u> | | ROJE 857: J | | Fires | Inte | gratio | on & Interope |
| Saladala Dar Cla (D4 | E-1:1:0 | | | | | | | | | | Son | tom | ber 2 | 2009 |
| Schedule Profile (R4 BUDGET ACTIVITY 4 - Advanced Component Developm (ACDP) | 1 | | ER AND TITLE D8Z - Joint | Fires I | ntegra | tion & | Inter | ope | rabi | lity | Зер | | 1 | PROJECT P857 |
| Event Name | FY 09 F 1 2 3 4 1 2 | Y 10 | FY 11 1 2 3 4 | | 12 3 4 | FY 1 2 | 13 4 | 1 | FY: | 14 | | FY 1 | 3 4 | |
| Operational Test & Planning, Publications | | | | | | | | | | | | | | |
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Office of Secretary Of Defense

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATUREPE 0604828D8Z: Joint Fires Integration & Interoperability

PROJECT

P857: Joint Fires Integration & Interoperability

Schedule Details

| | St | art | Eı | nd |
|---|---------|------|---------|------|
| Event | Quarter | Year | Quarter | Year |
| Operational Test & Planning, Publications | 1 | 2009 | 4 | 2012 |